Application Number	Application/Control No.	Applicant(s)/Patent Under Reexamination
	10/665,513	TERADA ET AL.
	Examiner	Art Unit
	Mitra Tashakkori	2109

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,513	09/22/2003	Katsuhiko Terada	0124/0014	5821

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ART UNIT	PAPER NUMBER
2109	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/665,513	TERADA ET AL.
	Examiner	Art Unit	
	Mitra Tashakkori	2109	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>22 September 2003</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-8* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-8* is/are rejected.

7) ☒ Claim(s) *1-8* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :12/18/2003, 12/18/2006, 04/09/2007.

This is in response to application filed on 09/22/2003, in which claims 1-8 are presented for examination.

Status of Claims

Claims 1-8 are pending, of which claims 1, 4, 7 and 8 are in independent form.

Information Disclosure Statement

1.   The information disclosure statement filed on 12/22/2006 does not fully comply with the requirements of 37 CFR 1.98(b) because: Japanese document number 2002-090575 was cited, but was not provided. However, the Japanese Patent Office cited JP 2000-090575 A as prior art for the priority document this application claims benefit to, and when this IDS was filed, JP 2000-090575 was submitted with it. Since the submission appears to be *bona fide*, applicant is given **ONE (1) MONTH** from the date of this notice to supply the above mentioned omissions or corrections in the information disclosure statement. NO EXTENSION OF THIS TIME LIMIT MAY BE GRANTED UNDER EITHER 37 CFR 1.136(a) OR (b). Failure to timely comply with this notice will result in the above mentioned information disclosure statement being placed in the application file with the non-complying information **not** being considered. See 37 CFR 1.97(i).

Specification

2.   The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any

errors of which applicant may become aware in the specification.

3.   A substitute specification, including the claims, is required pursuant to 37 CFR 1.125(a) because it appears to be a literal translation into English from a foreign document and is replete with grammatical and idiomatic errors.

A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

Claim Objections

4.   Claim 2 is objected to because of the following informalities: the term "and" as used on page 38, line 2 as well as page 38, line 5 makes the meaning of the claim unclear as to whether the third list of contents is updated when *both* the first and second list are updated or when *either* is updated. The same lack of clarity is present regarding the criteria for the fourth list to

be updated. Based on the specification, the examiner is interpreting the claim to mean the third

and fourth lists are updated when *either* list is updated. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koichi JP

2002-083485 A (hereinafter referred to as Koichi) in view of the <u>McGraw-Hill Encyclopedia of

Networking & Telecommunications</u> by Tom Sheldon, pages 361-367, 376-379, 512-517, and 589-

590 (hereinafter referred to as Sheldon).

7.   As per claim 1, Koichi discloses *"A contents reproducing system comprising: first,*

second, and third apparatuses" and *"means provided in the first apparatus for generating*

a first list of contents represented by data stored in the first apparatus" and *"means*

provided in the second apparatus for generating a second list of contents represented by

data stored in the second apparatus" as an AV network system which includes a plurality of

recording and reproduction apparatuses, each one storing contents data, and a server which

collects information from each apparatus about the records it holds and uses the gathered

information to create and display a summarized contents list of all records stored on devices in

the network, as admitted by the applicant in the description of related art portion of the

specification (pg. 1, line 15 - pg. 2, line 21). The examiner is interpreting the AV system of Koichi to be equivalent to an apparatus of the present invention, based on the similarities between a server apparatus of the present invention and the disclosed functionality of the server in Koichi, and is considering the recording and reproduction apparatuses as analogous to peripheral devices directly connected to the server. Koichi is silent on having multiple apparatuses (i.e. a plurality of the disclosed AV systems) connected via a LAN or other network, as well as on the functionality associated with the network communications of these multiple apparatuses; however, the practice of connecting multiple independent systems via a network is well known in the art, as is evidenced by Sheldon, which teaches "*a network connecting the first, second, and third apparatuses*" as a distributed computing system in a home network (Sheldon, pages 376 and 589). Sheldon teaches "*means provided in the first apparatus for getting the second list of contents from the second apparatus and combining the first list of contents and the second list of contents into a third list of contents*" and "*means provided in the second apparatus for getting the first list of contents from the first apparatus and combining the first list of contents and the second list of contents into a fourth list of contents which is equal to the third list of contents*" and "*means provided in the third apparatus for referring to one of (1) the third list of contents which is generated by the first apparatus and (2) the fourth list of contents which is generated by the second apparatus*" as capabilities of a distributed file system, which is well known in the art as functionality associated with a distributed computing system, as is evidenced by the following excerpt from pg. 514 of Sheldon:

> Distributed file systems store files on multiple servers, replicate files among those servers, and present users with a single view of all the servers. Files are accessible to users by filename without regard to the physical location of the file. [...] A distributed file system provides a single "catalog" view of files on your network, no matter where those files are located.

Sheldon further states that in a distributed file system, the use of "directory services" allows files to be presented in a hierarchal structure, grouped logically by different attributes (Sheldon, pg. 516). It would be obvious to one skilled in the art to modify Koichi to include multiple AV network systems, which includes multiple servers, to create a home network that included the function of distributed file systems as a feature, for reasons described by Sheldon in the following excerpt from page 589:

> As computer prices drop and more homes obtain multiple computers and/or Web appliances, there is a need to network those computers. A home network can give all users access to the same internet access line, which is practical if the line is high-speed DSL or cable. A home network also lets family members share peripherals such as printers and quickly transfer files between computers. For example, family members may want to exchange photos. Since these files are usually large, it makes sense to do it over a network rather than copying to a disk. Disk devices can also be shared. If one system has a CD writer, other family members may access it as if it is a local drive and create their own CDs.

8.   As per claim 7, Koichi discloses "*A contents recording and reproducing system comprising: first, second, and third apparatuses*" and "*means provided in the first apparatus for generating a first list of contents represented by data stored in the first apparatus*" and "*means provided in the second apparatus for generating a second list of contents represented by data stored in the second apparatus*" as an AV network system which includes a plurality of recording and reproduction apparatuses, each one storing contents data, and a server which collects information from each apparatus about the records it holds and uses the gathered information to create and display a summarized contents list of all records stored on devices in the network, as admitted by the applicant in the description of related art portion of the specification (pg. 1, line 15 - pg. 2, line 21). The examiner is interpreting the AV system of Koichi to be equivalent to an apparatus of the present invention, based on the similarities between a server apparatus of the present invention and the disclosed functionality

of the server in Koichi, and is considering the recording and reproduction apparatuses as

analogous to peripheral devices directly connected to the server. Koichi is silent on having

multiple apparatuses (i.e. a plurality of the disclosed AV systems) connected via a LAN or other

network, as well as on the functionality associated with the network communications of these

multiple apparatuses; however, the practice of connecting multiple independent systems via a

network is well known in the art, as is evidenced by Sheldon, which teaches "*a network*

connecting the first, second, and third apparatuses" as a distributed computing system in a

home network (Sheldon, pages 376 and 589). Sheldon teaches "*means provided in the first*

apparatus for getting the second list of contents from the second apparatus and

combining the first list of contents and the second list of contents into a third list of

contents" and "*means provided in the second apparatus for getting the first list of*

contents from the first apparatus and combining the first list of contents and the second

list of contents into a fourth list of contents which is equal to the third list of contents" and

"*means provided in the third apparatus for referring to one of (1) the third list of contents*

which is generated by the first apparatus and (2) the fourth list of contents which is

generated by the second apparatus" as capabilities of a distributed file system, which is well

known in the art as functionality associated with a distributed computing system, as is

evidenced by the following excerpt from pg. 514 of Sheldon:

> Distributed file systems store files on multiple servers, replicate files among those servers, and
> present users with a single view of all the servers. Files are accessible to users by filename
> without regard to the physical location of the file. [...] A distributed file system provides a single
> "catalog" view of files on your network, no matter where those files are located.

Sheldon further states that in a distributed file system, the use of "directory services" allows files

to be presented in a hierarchal structure, grouped logically by different attributes (Sheldon, pg.

516). It would be obvious to one skilled in the art to modify Koichi to include multiple AV

network systems, which includes multiple servers, to create a home network that included the

function of distributed file systems as a feature, for reasons described by Sheldon in the

following excerpt from page 589:

> As computer prices drop and more homes obtain multiple computers and/or Web appliances,
> there is a need to network those computers. A home network can give all users access to the same
> internet access line, which is practical if the line is high-speed DSL or cable. A home network also
> lets family members share peripherals such as printers and quickly transfer files between
> computers. For example, family members may want to exchange photos. Since these files are
> usually large, it makes sense to do it over a network rather than copying to a disk. Disk devices
> can also be shared. If one system has a CD writer, other family members may access it as if it is a
> local drive and create their own CDs.

9.   Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koichi in view of

Sheldon, and further in view of Ruths US 2003/0018719 A1 (hereinafter referred to as Ruths).

10.   As per claim 2, Koichi in view of Sheldon, as explained above, discloses *"A contents*

reproducing system as recited in claim 1" as discussed above in the analysis of claim 1.

However, neither Koichi nor Sheldon teaches means for updating the contents lists when new

content is added to the network. Nevertheless, Ruths discloses *"means provided in the first*

apparatus for, when data representing a first new content is stored in the first apparatus,

updating the first list of contents to include the first new content; means provided in the

second apparatus for, when data representing a second new content is stored in the

second apparatus, updating the second list of contents to include the second new content;

means provided in the first apparatus for updating the third list of contents in response

to the updating of the first list of contents and the updating of the second list of contents;

and means provided in the second apparatus for updating the fourth list of contents in

response to the updating of the first list of contents and the updating of the second list of

contents" as the function of a broadcast to all other connected platforms in a collaborative

environment when collaborative data is changed, for the purpose of updating all representations

of that data (Ruths, pg. 10, [0102]). The distributed file system, as described above in the

analysis of claim 1, allows stored data to be accessible from all other networked apparatuses.

This capability may be considered collaborative functionality, where the collaborative data is the

contents data stored on various apparatuses of the network. It would be obvious to one skilled

in the art to modify the file system to have each server broadcast any additions to its files, in

order to ensure any resource or contents data stored in any connected apparatus is also

displayed and available to any other apparatus connected to the network.

11.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koichi in view of

Sheldon, and further in view of The Microsoft Computer Dictionary, 4th edition, page 404

(hereinafter referred to as the Microsoft Computer Dictionary).

12.   As per claim 3, Koichi in view of Sheldon, as explained above, discloses "*A contents*

reproducing system as recited in claim 1" as discussed above in the analysis of claim 1. Both

Koichi and Sheldon are silent on means for removing contents from the combined contents list

once the apparatus it is stored on becomes disconnected from the network; however, this

practice is well known in the art, as is evidenced by the Microsoft Computing Dictionary, which

teaches "*means provided in the first apparatus for, when the second apparatus is*

disconnected from the network, updating the third list of contents to delete therefrom the

contents represented by the data stored in the second apparatus; and means provided in

the second apparatus for, when the first apparatus is disconnected from the network,

updating the fourth list of contents to delete therefrom the contents represented by the

data stored in the first apparatus" as the function of Server Advertising Protocol (SAP),

defined as "A method used by a service-providing node in a network (such as a file server or

application server) to notify other nodes on the network that it is available for access. When a

server boots, it uses the protocol to advertise its service; when the same server goes offline, it uses the protocol to announce that it is no longer available," (pg. 404). It would be obvious to one skilled in the art to have a server announce its presence and departure in a home network operating a distributed file system, in order to ensure each apparatus is displaying a synchronized, complete version of the total collection of data, which requires no longer displaying contents that were stored on an apparatus that has been disconnected.

13.   Claims 4, 5, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koichi in view of Sheldon, and further in view of Hidetoshi, et al. JP 2002-044586 A (hereinafter referred to as Hidetoshi).

14.   As per claim 4, Koichi in view of Sheldon, as explained above, discloses *"A contents reproducing system comprising: a first reproducing apparatus; a second reproducing apparatus; a network connecting the first reproducing apparatus and the second reproducing apparatus"* as discussed above in the analysis of claim 1. However, neither Koichi nor Sheldon includes means for generating information to mark a point between the reproduced portion of a record and the portion that has not yet been reproduced, nor does it include means for resuming reproduction on a second apparatus starting at that same point rather than at the beginning of the content. Nevertheless, Hidetoshi discloses *"first means for, when the first reproducing apparatus suspends reproduction of a content and there occurs an un-reproduced part of the content, generating first information to identify the content, second information to identify a place storing data representing the content, and third information indicating a bookmark point corresponding to a beginning of the un-reproduced part of the content; and second means for, when the un-reproduced part of the content is requested to be reproduced by the second reproducing apparatus, causing*

the second reproducing apparatus to identify the content in response to the first

information, to get the data representing the identified content from the place identified

by the second information, and to reproduce the un-reproduced part of the content in

response to the bookmark point indicated by the third information" as admitted by the

applicant in the description of prior art (pg. 2, line 22 - pg. 3, line 24) except that both the first

and second means are directed to functions executed within a single apparatus (pg. 4, lines 3-6).

The bookmark information is stored into memory, which may be a hard disk. A distributed file

system on a home network, as discussed in the analysis of claim 1, could include this stored

information with the content records, thus making it accessible to other apparatuses connected

to the network. It would be obvious to one skilled in the art to further modify the combination

of Koichi and Sheldon to not only allow reproduction of content stored on any apparatus in the

network but also to incorporate the bookmark feature disclosed by Hidetoshi, such that the

function of reproducing would further include the ability to resume reproduction based on the

bookmark information, for content that had been partially reproduced. This modification would

be made to ensure that all functionality available to a standalone AV system is also available to

any apparatus connected to the network, including access to contents stored in any connected

apparatus.

15.   As per claim 5, Koichi in view of Sheldon, and further in view of Hidetoshi, as explained

above, discloses "*A contents reproducing apparatus as recited in claim 4*" as discussed

above in the analysis of claim 4. Hidetoshi also discloses "*a content bookmark button*

provided in the first reproducing apparatus; third means for causing the first

reproducing apparatus to suspend the reproduction of the content when the content

bookmark button is actuated; and fourth means for activating the first means when the

content bookmark button is actuated" as admitted by the applicant in the description of prior

art (pg. 2, line 22 - pg. 3, line 24). It would be obvious to one skilled in the art to further modify Koichi in view of Sheldon to include a button to implement the bookmark feature, making that functionality easily and directly accessible for a user who wants to stop reproduction at a specific point and resume later, perhaps on a different apparatus connected to the network.

16.   As per claim 8, Koichi in view of Sheldon, and further in view of Hidetoshi, as explained above, discloses *"A contents recording and reproducing system comprising: a first reproducing apparatus; a second reproducing apparatus; a network connecting the first reproducing apparatus and the second reproducing apparatus"* However, neither Koichi nor Sheldon includes means for generating information to mark a point between the reproduced portion of a record and the portion that has not yet been reproduced, nor does it include means for resuming reproduction on a second apparatus starting at that same point rather than at the beginning of the content. Nevertheless, Hidetoshi discloses *"first means for, when the first reproducing apparatus suspends reproduction of a content and there occurs an un-reproduced part of the content, generating first information to identify the content, second information to identify a place storing data representing the content, and third information indicating a bookmark point corresponding to a beginning of the un-reproduced part of the content; and second means for, when the un-reproduced part of the content is requested to be reproduced by the second reproducing apparatus, causing the second reproducing apparatus to identify the content in response to the first information, to get the data representing the identified content from the place identified by the second information, and to reproduce the un-reproduced part of the content in response to the bookmark point indicated by the third information"* as admitted by the applicant in the description of prior art (pg. 2, line 22 - pg. 3, line 24) except that both the first and second means are directed to functions executed within a single apparatus (pg. 4, lines 3-6). The bookmark information is stored into memory, which may be a hard disk. A distributed file

system on a home network, as discussed in the analysis of claim 1, could include this stored

information with the content records, thus making it accessible to other apparatuses connected

to the network. It would be obvious to one skilled in the art to further modify the combination

of Koichi and Sheldon to not only allow reproduction of content stored on any apparatus in the

network but also to incorporate the bookmark feature disclosed by Hidetoshi, such that the

function of reproducing would further include the ability to resume reproduction based on the

bookmark information, for content that had been partially reproduced. This modification would

be made to ensure that all functionality available to a standalone AV system is also available to

any apparatus connected to the network, including access to contents stored in any connected

apparatus.

17.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koichi in view of

Sheldon in view of Hidetoshi, and further in view of Ruths.

18.   As per claim 6, Koichi in view of Sheldon, and further in view of Hidetoshi, as explained

above, discloses "*A contents reproducing apparatus as recited in claim 4*" as discussed

above in the analysis of claim 4. Hidetoshi discloses "*a memory provided in the first*

reproducing apparatus; third means for combining the first information, the second

information, and the third information into bookmark information; fourth means for

writing the bookmark information into the memory" as admitted by the applicant in the

description of prior art (pg. 2, line 22 - pg. 3, line 24). However, Koichi, Sheldon, and Hidetoshi

are all silent on an updating mechanism that transmits the newly recorded bookmark

information to other apparatuses on the network. Nevertheless, Ruths discloses "*fifth means*

for transmitting the bookmark information to the second reproducing apparatus" as the

function of a broadcast to all other connected platforms in a collaborative environment when

collaborative data is changed, for the purpose of updating all representations of that data (Ruths, pg. 10, [0102]). The distributed file system, as described in the analysis of claim 4, allows stored data to be accessible from all other networked apparatuses. This capability may be considered collaborative functionality, where the collaborative data is the contents data stored on various apparatuses of the network. It would be obvious to one skilled in the art to modify the file system to have each server broadcast any additions to its files, in order to ensure each apparatus is displaying a synchronized, complete version of the total collection of data. Thus, when bookmark information is generated and recorded, and reproduction is suspended, the information is transmitted via broadcast to all other networked apparatuses. This ensures that all functionality available to a standalone AV system is also available to any apparatus connected to the network, and that any resource or contents data stored in any connected apparatus is also displayed and available to any other apparatus connected to the network.

Conclusion

19.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

         a.   Levy, E. and Silberschatz, A. Distributed file systems: concepts and examples. ACM Computing Surveys, vol. 22, No. 4, Dec. 1990, pages 321-374.

         Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitra Tashakkori whose telephone number is 571-272-9069. The examiner can normally be reached on Mon-Thurs 8:30am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Frantz Coby can be reached on 571-272-4017. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you

would like assistance from a USPTO Customer Service Representative or access to the

automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MT

Mitra Yasvalli

08/09/2007

Frantz Coby

FRANTZ COBY

SUPERVISORY PATENT EXAMINER